

## Tzhone, Stephen

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**From:** Snyder, Raquel  
**Sent:** Thursday, September 26, 2013 10:33 AM  
**To:** Sanchez, Carlos; Tzhone, Stephen; Thomas, LaWanda  
**Cc:** Meyer, John; Faultry, Charles  
**Subject:** RE: Arkwood, Inc. - Congressional Inquiry on Superfund Site in Boone County, Arkansas

Here is OSWER's response:

Usually reviews of this type are pursuant to 5 year reviews. But, if that is not the case in this instance, OSWER is fine with removing the text that referenced the 5 year review process. But, R6 may want to say the evaluation is part of the partial deletion process. We were trying to give a reason for the evaluation so that people did not assume the evaluation was being done because there was concern that the remedy was no longer protective

Many thanks,

Raquel Snyder  
Congressional Liaison  
U.S. EPA/Office of Congressional Affairs  
(202)564-9586

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**From:** Sanchez, Carlos  
**Sent:** Thursday, September 26, 2013 11:25 AM  
**To:** Snyder, Raquel; Tzhone, Stephen; Thomas, LaWanda  
**Cc:** Meyer, John; Faultry, Charles  
**Subject:** RE: Arkwood, Inc. - Congressional Inquiry on Superfund Site in Boone County, Arkansas

Raquel,

The language you included is correct for the process we intent to follow for other sites. However, the review for Arkwood was triggered from the request by Mr. Grisham for a partial deletion. We can leave 5 year review language, but state that for Arkwood the trigger for review was due to a request for partial deletion. CAS

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**From:** Snyder, Raquel  
**Sent:** Thursday, September 26, 2013 10:20 AM  
**To:** Tzhone, Stephen; Thomas, LaWanda  
**Cc:** Sanchez, Carlos; Meyer, John; Faultry, Charles  
**Subject:** RE: Arkwood, Inc. - Congressional Inquiry on Superfund Site in Boone County, Arkansas

Let me run this by OSWER and get right back to you. Thanks!

Many thanks,

Raquel Snyder  
Congressional Liaison  
U.S. EPA/Office of Congressional Affairs  
(202)564-9586

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**From:** Tzhone, Stephen  
**Sent:** Thursday, September 26, 2013 11:19 AM  
**To:** Thomas, LaWanda; Snyder, Raquel  
**Cc:** Sanchez, Carlos; Meyer, John; Faultry, Charles  
**Subject:** RE: Arkwood, Inc. - Congressional Inquiry on Superfund Site in Boone County, Arkansas

Hi LaWanda, Raquel: My section chief Carlos Sanchez and I just discussed these edits. We can concur on all the edits except for the highlighted ones. The reason is because R6 is actually conducting this re-evaluation earlier than the 5 year review process (which would be at July 2016). This earlier re-evaluation process happened because R6 started exploring partial deletion for the site in November 2011... then when 2012 came and the dioxin toxicity changed, R6 had to re-evaluate that component before any decision on partial deletion can happen.

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**From:** Thomas, LaWanda  
**Sent:** Thursday, September 26, 2013 7:10 AM  
**To:** Tzhone, Stephen  
**Cc:** Sanchez, Carlos; Meyer, John; Faultry, Charles  
**Subject:** FW: Arkwood, Inc. - Congressional Inquiry on Superfund Site in Boone County, Arkansas

Good morning All,

Please see edits from HQ below. Please let me know if you have any thoughts, comments or objections before I finalize and send forward to Cong. Womack's office.

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**From:** Snyder, Raquel  
**Sent:** Thursday, September 26, 2013 7:06 AM  
**To:** Thomas, LaWanda  
**Subject:** RE: Arkwood, Inc. - Congressional Inquiry on Superfund Site in Boone County, Arkansas

Hi LaWanda,

Here are the revised responses. New text is in red. Thank you.

- The Superfund Information Systems EPA Superfund Site Progress Profile for Arkwood indicates the following, and I would like this information confirmed:
  - Current human exposures at this site are under control. **Answer:** Yes; however, as part of the Superfund 5 Year Review process that EPA uses to periodically evaluate site cleanup remedies, EPA is in the process of verifying if human exposures remains under control.
  - Contaminated ground water migration is under control. **Answer:** Yes; however, as part of the Superfund 5 Year Review process that EPA uses to periodically evaluate site cleanup remedies, EPA is in the process of verifying if contaminated ground water migration remains under control.
  - Physical cleanup activities have been completed, with construction complete on June 28, 1996. **Answer:** Yes.
  - The only major site cleanup milestone not yet reached is deletion from the NPL. **Answer:** No, the Superfund statute requires that cleanup remedies meet site cleanup goals and standards, thus, the groundwater cleanup must achieve Arkansas Water Quality Standards.
  - EPA has determined that the Arkwood site meets the criteria for Site-wide Ready for Anticipated Use, meaning that all cleanup goals have been achieved for both current and reasonably anticipated future land use. **Answer:** Yes; however, as part of the Superfund 5 Year Review process that EPA uses to periodically evaluate site cleanup remedies, EPA is in the process of verifying if the site still meets the criteria for Site-wide Ready for Anticipated Use.
- I understand that Arkwood has a Site Score of 28.95 on the Hazard Ranking System that considers ground water migration, surface water migration, soil exposure and air migration. I also understand that the minimum site

score to be listed on the NPL is 28.50. Having reviewed the current list of 1,320 Final NPL sites, I see that Arkwood is among the 1.8% of sites nationally that are within a half-point of the cut-off for listing on the NPL. Additionally, I find that the Arkwood site has the lowest Site Score for all Final NPL sites currently in EPA Region 6. While I know the Site Score is a screening tool and not a site specific risk assessment, it is the primary criterion EPA uses to determine whether a site should be placed on the NPL in the first place. As the site barely surpasses the HRS score threshold for NPL consideration, it would seem to me – from a layman’s perspective – that Arkwood would be low-hanging fruit in terms of seeing the cleanup process through to deletion from the NPL. However, nearly 25 years have transpired since Arkwood was listed as final on March 31, 1989.

Recognizing that much work has transpired in the interim, I would like to know:

- Where is this site in the clean-up process in terms of meeting the requirements for deletion from the NPL? **Answer:** The requirements for NPL deletion are found at: [http://www.epa.gov/superfund/programs/npl\\_hrs/nploff.htm](http://www.epa.gov/superfund/programs/npl_hrs/nploff.htm) For this site, the dioxin re-evaluation and any subsequent actions must be completed. In addition, the PCP in groundwater must achieve Arkansas Water Quality Standards and corrected institutional controls must be in place.
- What steps must be taken to complete the clean-up process and delete Arkwood from the NPL? **Answer:** Please see above.
- What is the expected/anticipated/estimated time it will take to reach the goal of completion of the clean-up process so a decision can be made for the site to be deleted from NPL? **Answer:** For soil, the site dioxin re-evaluation is planned for completion in September 2014. Afterwards, any subsequent actions, if identified by the re-evaluation, must be implemented as well and the timeframe for these actions is unknown. For groundwater, PCP must achieve Arkansas Water Quality Standards and the timeframe for that is unknown. For institutional controls, that should be completed by December 2013, assuming agreement between the landowner, EPA, and ADEQ.
- What – if any – factors in this case have, or continue to, present obstacles to reaching a conclusion in the clean-up progress and deletion from the NPL? **Answer:** The main factor is the change in the estimate of dioxin toxicity and potential changes to preliminary remedial goals. The second factor is that PCP in groundwater have not achieved Arkansas Water Quality Standards. The third factor is that corrected institutional controls need to be implemented.
  - Mr. Grisham has expressed concerns about apparent differences between EPA and ADEQ regarding the remedial goal for PCP levels. Are the proper standards/criteria/screening levels being applied? **Answer:** Currently being verified. The 1990 Record Of Decision applies Arkansas Water Quality Standards for the groundwater remedy. In November 2012, ADEQ advised EPA of changes in its standards to be applied. Then in December 2012 and August 2013, McKesson Corporation and Mr. Curt Grisham provided comments on this change respectively. ADEQ is in the process of considering their comments and will advise EPA of any changes to its position. Afterwards, EPA will make a final determination.
  - Mr. Grisham mentioned that concerns regarding dioxin levels recently developed due not to a change at that site but an EPA reassessment of dioxin toxicity. How does this factor into the clean-up progress? **Answer:** Site dioxin is being re-evaluated based upon EPA’s 2012 reassessment of dioxin toxicity. For additional information please see Questions and Answers here: <http://epa.gov/superfund/health/contaminants/dioxin/dioxinsoil.html>
  - Are there any other chemicals present on site that present a concern? **Answer:** The contaminants at the site are: Pentachlorophenol (PCP), Dioxin, and Polynuclear Aromatic Hydrocarbons (expressed as Benzo(a)pyrene equivalents).
- What efforts are being made to accelerate/expedite this cleanup to reach the point of deletion from the NPL? **Answer:** This site is one of the earliest sites nationwide going through dioxin reevaluation. EPA will work closely with the landowner, McKesson Corporation, and ADEQ to expedite the cleanup process.
- Mr. Grisham has cited a letter from the late 1980’s that indicated at that time an expectation existed for the completion of this process to be relatively quick. In a letter dated Nov. 4, 1989, the then director of the EPA Region 6 Superfund Division stated to the Boone County judge that “However, cleanup of the groundwater New

Cricket Spring, is anticipated soon. As soon as this happens EPA plans to delist the site from the NPL and return it to productive use.”

- What changed from that time to postpone the expressed optimism of the outcome, still unrealized to this day? **Answer:** From 1989 to present, the groundwater has not achieved its **cleanup** goal (i.e., the Arkansas Water Quality Standards). In addition, **based upon more recent science**, the EPA’s position on dioxin changed in 2012, which necessitated a **re-evaluation** of the soil remedy.
  - What is the timeframe for Arkwood’s return to productive use? **Answer:** Arkwood can return to productive use at any time, provided that the remedy is not compromised. The remedy that cannot be compromised consists of addressing the soil and groundwater to numerical cleanup goals as specified in the 1990 Record of Decision (and to be updated with the dioxin **re-evaluation**) and institutional controls.
  - As the primary focus of my inquiry relates to deletion from the NPL (with return to a productive use so the site can become an economic development opportunity a close second) I request that any information pertaining to the process not addressed by my questions be explained so I have a clear understanding of what is involved to bring Arkwood to that point.
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